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ABSTRACT

Environmental attitudes and behaviors established during the preschool years provide the basis for a lifetime of responsible actions. Each activity in this guide is designed to stand alone and have been arranged by key experiences (classification, number concepts, representation, seriation, spatial relations, and time) and by environmental topics (basic survival needs, change, conservation, evidence of wildlife, habitat, and recycling/litter prevention). Each activity includes a statement of the instructional objective; a brief description of the method used; background information for the teacher; a list of materials needed; procedures for each section; ways to evaluate student learning; indication of recommended age level, key experiences, setting (outdoors or indoors) and key vocabulary; extensions to reinforce the major activity; and teaching aids. Appendices include a list of agencies and organizations which may be helpful to teachers who use the activities and a glossary of terms for use by the teacher. (MKR)

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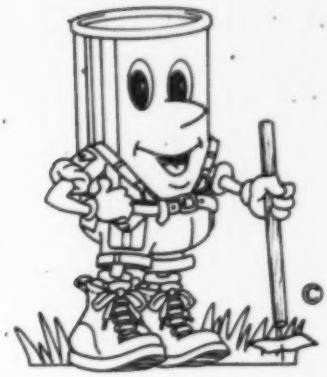

ROSCOE says

Nature's for ME

preschool

environmental and recycling activity guide for teachers and parents

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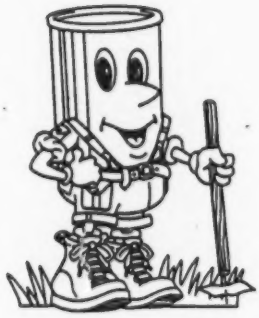

ROSCOE is the Steel Recycling Institute's 'spokescan.' His name stands for "Recycle Our Steel; Conserve Our Environment."

Nature's for ME is part of the Steel Cycles Education Program of the Steel Recycling Institute.

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ACKNOWLEDGEMENTS

Nature's for ME, a preschool environmental and recycling activity guide for teachers and parents, was developed by Eco Educators, Inc. in cooperation with teachers, parents and administrators from the South-Western City Schools' Head Start program in Central Ohio. The Steel Recycling Institute gratefully acknowledges the time, talent, and enthusiasm of the Head Start development team.

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ACTIVITIES BY KEY EXPERIENCE

Many preschool and Head Start programs are designed to focus on a child's skill development through key experiences. ***Nature's for ME*** activities are designed to encompass one or more of the following key experiences.

Classification
Anybody Home
Bug Me
Feels Like a Can
Give It Back
They're All Wet
Un-Nature Trail
Up A Tree
What's In The Egg?

Number Concepts
Bug Me
Green Family
They're All Wet
Un-Nature Trail

Representation
Anybody Home
Bug Me
Feels Like a Can
They're All Wet
Up A Tree
What's In The Egg?

Seriation
Anybody Home
Bug Me
Feels Like a Can
Give It Back
They're All Wet
Up a Tree
What's In The Egg?

Spacial Relations
Anybody Home
Bug Me
Feels Like a Can
Give It Back
Green Family
Up A Tree

Time
Bug Me
Give It Back
Green Family
Un-Nature Trail
Up A Tree

ACTIVITIES BY TOPIC

The following is a listing of environmental and recycling topics included in the ***Nature's for ME*** activity guide.

Basic Survival Needs
Anybody Home
What's In The Egg?

Change
Bug Me
They're All Wet
Up A Tree

Conservation
Give It Back
Up A Tree

Evidence of Wildlife
Anybody Home (mammals)
Bug Me (insects/spiders)
Green Family (insects)
They're All Wet (amphibians, fish, mammals, reptiles)
Up A Tree (birds)
What's In The Egg? (birds/reptiles)

Habitat
Anybody Home
Green Family
They're All Wet
Up A Tree

Recycling/Litter Prevention
Feels Like a Can
Give It Back
Green Family
Un-Nature Trail
Up a Tree

PREFACE

Nature's for ME is a program designed by the Steel Recycling Institute to provide environmental and recycling education activities for the educators of preschool age children. The Steel Recycling Institute provides environmental and recycling education programs for preschool through grade 12.

Nature's for ME was developed and tested by a team of Head Start teachers, parents and administrators to introduce environmental education and experiences to the preschool age child.

The motivation for developing this program was through requests from Head Start teachers and administrators for environmental and recycling activities appropriate for preschool aged children and their parents.

This curriculum and accompanying kit includes a reusable box printed with wildlife drawings, a "How Do You Color Recycling?" coloring poster, a magnet and a new steel can.

Nature's for ME is an adaptation of the *Project WILD Ohio Preschool/Head Start* activity guide developed by the Ohio Department of Natural Resources, Division of Wildlife.

For additional information about ***Nature's for ME***, please contact the Steel Recycling Institute, 680 Andersen Drive, Pittsburgh, Pennsylvania 15220-2700, (412) 922-2772.

INTRODUCTION

Environmental attitudes and behaviors established during the preschool years provide the basis for a lifetime of responsible actions. A concern for the land and its resources is basic to our survival, both as individuals and as a nation.

Human beings have a unique privilege and responsibility. We are able to use the environment and all of its wonderful resources, and we are also able to control how we use and conserve these resources.

Wildlife is vitally dependent upon us to keep its habitats clean, healthy and productive.
It is important that humans learn to use the earth's natural resources in a responsible manner.

Nature's for ME activity guide is designed to be compatible with the preschool learning approach - developmentally appropriate activities - while reinforcing values and responsibility in young children toward their environment.

Nature's for ME activity guide was developed to help children learn how to think, not what to think. This guide features child-directed learning and seeks to assist early childhood teachers and parents in educating young people about the environment and recycling.

HOW TO USE THIS GUIDE

Thanks for your interest in ***Nature's for ME***. This activity guide has been designed to be an instructional resource for people who care about natural resources and the environment--beginning with the recognition that the earth is home for people and wildlife and that recycling is a habit that we can all develop.

A Supplement to Existing Preschool Curriculum

Instructional activities within the ***Nature's for ME*** activity guide are designed to encompass preschool key experience skills, so that classroom teachers may use the materials to teach skills while the children learn about people, wildlife, and their environment. Preschool parents and others may also find the materials useful in non-school settings.

Organization of the Materials

Preschool teachers may pick and choose from the activities. Each activity is designed to stand alone, without other ***Nature's for ME*** activities. The activities have been arranged by key experiences and by environmental topics to aid the instructor in choosing activities that blend with the key experiences the class is presently learning. Use the activities in any order; some activities may lend themselves to a particular season or location.

Organization of Each Activity

Each activity includes a statement of the instructional objective; a brief description of the method used; background information for the teacher; a list of materials needed; procedures for each section; ways to evaluate student learning; indication of recommended age level, key experiences, setting (indoors or outdoors) and key vocabulary; extensions to reinforce the major activity; and teaching aids.

Appendix

The Appendix includes a list of agencies and organizations which may be helpful to teachers who use the activities and a glossary of terms for use by the teacher. We would like to hear from you at any time with suggestions as to how to improve them, requests for additional information and assistance--and any news of your experiences with the ***Nature's for ME*** activity guide.

ANYBODY HOME

Objective

The child will be able to 1) compare the "footprints" and "homes" of different types of wildlife, and 2) generalize that people and other animals share a basic need for homes.

Method

The child traces his or her own bare foot and compares it with "footprints" of several species of wildlife speculating how "feet" are used. The child also creates animal homes and engages in animal behavior role-play.

Background

Signs of wildlife are easy to find near a natural area, but are also evident in a backyard or even behind a school. One way to observe which animals live in a particular area is to find the tracks that they leave behind. Tracking animal "footprints" is easy: find a spot of ground that is level and has fine soil, smooth out the area and then come back later and find out who has been there. Good places for "footprint" investigation are near streams or other water sources or near a well-worn trail. Wildlife and people share some basic needs, such as food, water and shelter. While people choose the location of a home for beauty or practicality, animals choose "homes" for shelter, protection and proximity to food and water. People have invented machines to harvest food,

Age: 3 - 5
Key Experiences: classification, representation, seriation, spatial relations
Setting: indoors
Vocabulary: tracking, claws, talons, survive, den (bear)

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manufacture items and even to exercise. However, animals use only their bodies, particularly "hands" and "feet" (claws, paws, talons) to gather or build what is needed to survive.

The major purpose of this activity is to make the child aware of the differences in wildlife "footprints" and wildlife "homes," specifically birds, ducks and bears.

Materials

paper for foot tracings, charts for "footprint" attributes, "footprint" cut outs, pictures of each animal, materials for animal "homes"

Procedure

Footprints

1. Trace each child's bare foot. Make copies of wildlife feet patterns for each child. Cut out both the child and animal "feet."

2. Have the child compare the "feet" cut outs. Discuss what parts of the animal's "foot" are the same and different from the child's foot.

3. In small groups, classify both the child and animal "feet" according to their attributes: dig, swim, climb, perch, and get food. Make a poster with a picture that signifies each attribute, such as water for "feet" that swim, trees for "feet" that climb. Have the child put the "feet" that go with each attribute on the appropriate chart.

4. Provide the class with the opportunity to use their feet to dig, swim, climb and get food and observe wildlife doing the same.

Homebuilders

1. Place the cut out "footprints" of the bird, duck and bear on the floor ending at a picture of the animal and animal's "home."

2. Create animal "homes" and have the child pretend to be the animal. Suggestions include: a bird nest of shredded paper placed in a child's swimming pool; a duck pond of blue balloons contained by a large cardboard ring or styrofoam "peanuts" in a large plastic hoop; and a bear den made from cardboard boxes.

3. Ask the child: Where do you sleep, eat, drink and play? Do you know where a bird (then duck and bear) sleeps, eats, drinks, and plays?

Extensions

Ask the child: Do animals have spare time? What do they do in their spare time? What do you do? (Many animals spend time interacting with others of their species in their spare time, or relaxing in the sun, etc.) See craft, fingerplay and books listed on page 3.

Evaluation

Recall

Ask the child: How are your feet the same/different as the "feet" of wildlife? Where does a bird (duck, bear) live, sleep, eat, drink and play?

Observation

Watch child's role-playing in the created wildlife "homes."

Extensions

Craft

Trim a Tree for Birds

Materials: stale bread (but not moldy), cookie cutters, knife or scissors, peanut butter, yarn, orange halves, suet, bird seed, netting, dryer lint

1. Cut stale bread into shapes with cookie cutters.
2. Spread shapes with peanut butter and press into a tray of bird seed.
3. Hang them in trees with yarn or string.
4. Scoop out orange halves, fill with suet and bird seed and place in the crook of a tree branch.
5. Fill a piece of netting with dryer lint for nesting materials.

From **Good Earth Art** by MaryAnn F. Kohl, Bright Ring Pub., Billingham WA: 1991. Page 151.

Non-Fiction

- **Who Lives in the Forest?** by Ron Hirschi.
- **Animals that Build their Homes** by Robert M. McClung.
- **Nature's Footprints in the Forest** by Q.L. Pearce.
- **Animal Homes** by Illa Podendorf..
- **The World Beneath Your Feet** by Judith E. Rinard.

Fingerplay

The Squirrel

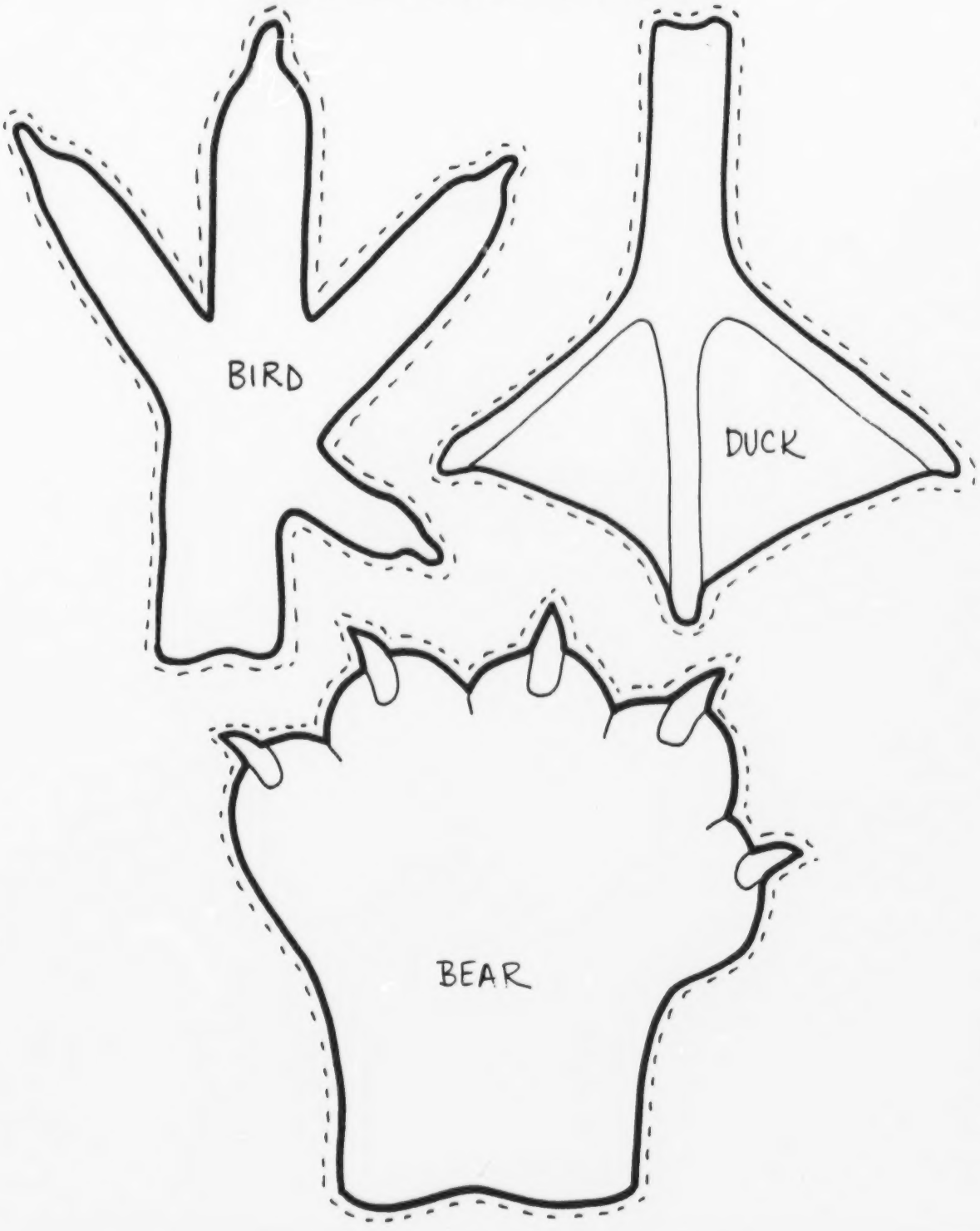
Whisky,frisky,hippity-hop,
("hop"hand on forearm)
Up he goes to the treetop.
(climb hand up forearm)
Whirly,twirly,round and round,
(twirl hands round and round)
Furly,curly,what a tail--
Tall as a feather, broad as a sail!
(curl and uncurl hand like a squirrel tail)
Where's his supper? In the shell.
(clasp hand like a nut shell)
Snappity,crackity. Out it fell.
(open hand as if a nut has fallen out)

From **Finger Rhymes** ill. by Marc Brown. Dutton, NY: 1980 Page 25.

Fiction

- **Over in the Meadow** ill. by Paul Galdone.
- **Asleep, Asleep** by Mirra Ginsburg.
- **Bear in Mind: A Book of Bear Poems** by Bobbye S. Goldstein.
- **Blueberries for Sal** by Roberrt McCloskey.
- **Make Way for Ducklings** by Robert McCloskey.

Animal Feet Patterns



BUG ME

Objective

The child will be able to 1) generalize that insects and spiders range from small to large and occur in a variety of forms and colors, and 2) recognize that insects, like a child, are involved in a process of continual change.

Method

The child observes a micro environment through a magnifying glass and describes the insects, spiders, plants and rocks observed. The child role-plays the stages of a butterfly and compares those stages to the life cycle of humans.

Background

Insects can run, swim, jump, crawl, buzz, tunnel and even walk on water. Insects include ants, wasps, crickets, grasshoppers, beetles, butterflies, moths, walking sticks and fireflies. Many people call insects "bugs." Insects have six legs and three body parts, the head, thorax and abdomen. They also have antennae (feelers) on top of their heads to help them sense the world. They usually have two eyes. Insects eat all sorts of things like leaves, seeds, wood or even other insects. Butterflies are a special kind of insect. They have four wings, six legs, and large eyes on the sides of their heads. Butterflies also have antennae. Butterflies eat by sipping water and nectar from flowers through a long sucking tube. Butterflies have a unique life cycle: beginning as an egg, developing into a caterpillar, resting

Age: 3-5
Key Experiences: classification, number concepts, representation, seriation, spatial relations, time
Setting: outdoors and indoors
Vocabulary: caterpillar, cocoon, antennae

for a time in a cocoon, and finally emerging as a beautiful butterfly.

Spiders are not insects. They have eight legs instead of six. A spider has only two body parts: the head and the abdomen. Spiders spin webs to catch their food, and spiders are helpful because they catch and eat harmful insects.

The major purpose of this activity is for the child to become familiar with insects and spiders and their habitats.

Materials

string, magnifying glass for each child, blanket or towel for each child, materials for butterfly costumes

Procedure

Belly Hikers

1. Give each child a piece of string three feet long and a magnifying glass.

2. Mark each child's "micro-trail" with the string. Starting at one end of the string, have the belly hikers look at the ground through the magnifying glass as they crawl slowly to the end of the string.

3. During the belly hike, ask each child to explore the ground for insects and spiders, looking for the number of legs, color, shape and sizes. Repeat the hike and examine the same area for plants and rocks.

4. Copy for each child a belly hike badge on page 8. Allow each child to draw a picture of an insect or spider on the belly hike badge.

Under the Rock

1. Find an area with large rocks or logs. Roll them over one at a time and watch the insects scramble and try to hide.

2. Quickly count and identify common insects and spiders. Discuss the reasons insects and spiders live under rocks (moisture, darkness, food) and hide when exposed to the light (go in dark places for protection).

3. Compare the types of insects and spiders found under each rock or log. Discuss reasons the types of insects/spiders varied (more moisture, better soil, darker, more predators in the area - birds, frogs).

Cocooning

1. Ask the child: How are you the same/different from a baby and from your parent? Discuss how you change over time from a baby to a "big" kid.

2. Describe how a caterpillar changes into a butterfly over time. Compare the stages of a butterfly to the life cycles of humans.

3. Have the child role-play the four stages of a butterfly: egg--roll up in a ball and slowly unroll; caterpillar--wiggle, creep and crawl along the floor; cocoon--wrap up in a blanket or towel and pretend to sleep; and butterfly--wake up, stand up and fly around using the blanket or towel for wings. Costume suggested include a cardboard box egg, headbands with pipe cleaner antennae, and colorful fabric or paper wings.

Extensions

See the craft, poem and books on page 7.

Evaluation

Recall

Ask the child: What is an insect? How are you like a butterfly?

Observation

1. Listen for the child's response to questions when on the belly hike.

2. Watch the child's involvement during the cocooning activity.

Extensions

Craft

Tissue Paper Butterflies

Materials: white construction paper, one-inch squares of colored tissue paper, containers of water, paintbrushes.

1. Cut butterfly shapes from white construction paper.
2. Set out assorted colors of one-inch tissue paper squares, small containers of water and paintbrushes.
3. Paint the butterfly shapes with water.
4. Place tissue paper squares randomly on the butterfly shape and count to ten.
5. Remove the wet tissue paper to reveal a colorful butterfly.

From **Theme-A-Saurus** by Jean Warren. Warren Pub., Everett, WA: 1989. Page 58.

Poem

Patter Pitter Caterpillar
high upon a limb,
looked at all the bumble bees
looking back at him.

suddenly beside him
appeared a tiny bug,
and Patter Pitter Caterpillar
got a tiny hug.

From **Beneath a Blue Umbrella** by Jack Prelutsky. Greenwillow, NY: 1990 Page 34.

Non-Fiction

- **The Life Cycle of a Spider** by Jill Bailey.
- **Insects and Spiders** by Lorus J. and Margery Milne.
- **Where Butterflies Grow** by Joanne Ryder.
- **Butterfly and Caterpillar** by Barrie Watts.

Fiction

- **The Very Busy Spider** by Eric Carle.
- **The Very Hungry Caterpillar** by Eric Carle.
- **The Very Quiet Cricket** by Eric Carle.
- **The Caterpillar and the Polliwog** by Jack Kent.
- **You Can't Catch Me!** by Joanne Oppenheim.

Ask Me About My
Belly Hike!

Ask Me About My
Belly Hike!

FEELS LIKE A CAN

Objective The child will be able to 1) recognize items from home which can be recycled, 2) identify, by touch, recyclable and non-recyclable items, and 3) understand how to recycle at home.

Method The child plays games of placing a can, newspaper or plastic bottle into the correct box and reaching into a pillow case filled with recyclable and non-recyclable items. The child also makes a puppet to role-play recycling at home.

Background Trash is no longer considered just trash. It can now be sorted by type of material and used over and over again. When an item is saved from the trash and made into a new product, it has been recycled. For example, steel food cans may become part of a new can or a child's toy.

Other items commonly recycled are newspaper, aluminum cans, glass, plastic and cardboard.

People everywhere are recycling in their homes. Families are being asked by their trash haulers and community leaders to do their part and recycle. Many communities provide a plastic bin which is used to store the cans, newspapers, glass and plastics.

To help save natural resources and land used to bury waste, people must change their habits to become less wasteful, using only what they need and reducing, reusing and recycling.

Age: 3-5
Key Experiences: classification, representation, seriation, spatial relations
Setting: outdoors and indoors
Vocabulary: recycle, recycler, can, newspapers, plastic

The major purpose of this activity is for the child to become familiar with items from the home which are commonly recycled and to learn how to collect recycled items.

Materials

string, newspapers, plastic soft drink bottles, full steel food cans and aluminum beverage cans, four cardboard boxes, pillow case, five non-recyclable items, scissors, poster board, crayons or colored markers, glue and materials for decorating puppets (yarn, buttons, fabric scraps).

Note: full food and beverage cans are recommended so there will be no rough edges; glass bottles are recyclable but are excluded from this activity for safety.

Procedure

Run, Rock, Recycle

1. Give each child a recyclable item: a can, newspaper or plastic liter bottle.

2. Label the four cardboard boxes for steel cans, aluminum cans, newspaper and plastic bottles by attaching the recycling signs provided on pages 13 and 14.

3. Mark off the playing area by placing a piece of string at the START, then placing another piece of string at 10 feet, and another at 20 feet. Place the four cardboard boxes along the 20 foot string.

3. Start the game by having the children, one at a time and holding their recyclable items, begin at start and run to the first string, then rock (dance) to the second string and place their recyclable item into the correctly labeled box. While performing this activity, sing "The Recycle Song" on page 11. Continue until everyone has recycled. Ask the children: Do you recycle these things at home? Do you recycle other things? If so, what?

Recyclable: Yes or No

1. Fill a pillow case with a can, newspaper and plastic bottle and five non-recyclable items.

2. Ask each child, one at a time, to feel inside the pillow case and find one item that can be recycled and one item that cannot be recycled.

3. Have the child describe the item that can be recycled by giving its name and/or which family member would have used it.

Mini Recycler

1. Copy onto heavy paper and cut out a finger puppet from page 12 for each child. Draw on the poster board the floor plan of a house with rooms big enough for a child's hand to fit inside. Inside each room, draw furniture and other items usually found there, or use pictures from magazines.

2. Have the children decorate their Mini Recycler finger puppets to look like them.

3. Ask each child, using his or her finger puppet, to pretend to live in the posterboard house by walking to a room and telling a story. Ask the child: What items can be recycled in this room? Where in the house would you take these items to store them until recycling day?

Extensions

See the song, craft and books on page 11.

Evaluation

Recall

Ask the child: What items can you recycle at home? Where do you keep them in your home until recycling day?

Observation

1. Listen for the child's response to questions after Run, Rock, Recycle.

2. Watch and listen to the child's involvement during the Recycle: Yes and No and Mini Recycler.

The Recycle Song

Tune: So Early in the Morning

This is the way we rinse the cans,
Rinse the cans, Rinse the cans.

This is the way we rinse the cans,
For recycling.

This is the way we smash the cans,
Smash the cans, smash the cans,

This is the way we smash the cans,
For recycling.

This the the way we sort the glass,
Sort the glass, sort the glass.

This is the way we sort the glass,
For recycling.

This is the way we bundle papers,
Bundle papers, bundle papers.

This is the way we bundle papers,
For recycling.

Setting Up a Recycle Craft Box

It is very easy to set up a large box in the garage, basement, or closet to be filled with treasures that would otherwise end up in the trash. Some things to collect are empty cardboard and plastic containers, paper and poster board scraps, used ribbons and wrapping paper, yarn, rick-rack, discarded silk flowers, etc. Once you get into the habit of collecting these goodies, you will never look at trash the same way again!

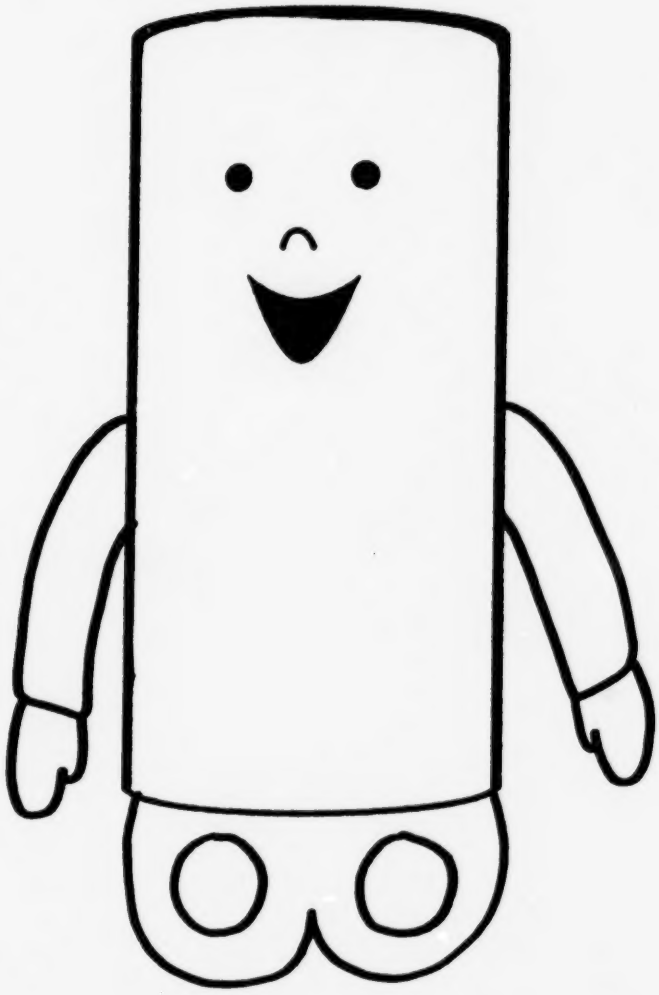
Non-Fiction

- **ABC of Ecology**
  by Harry Milgrom.
- **About Garbage and Stuff**
  by Ann Zane Shanks.

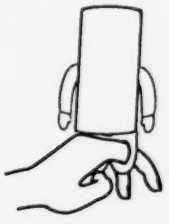
Fiction

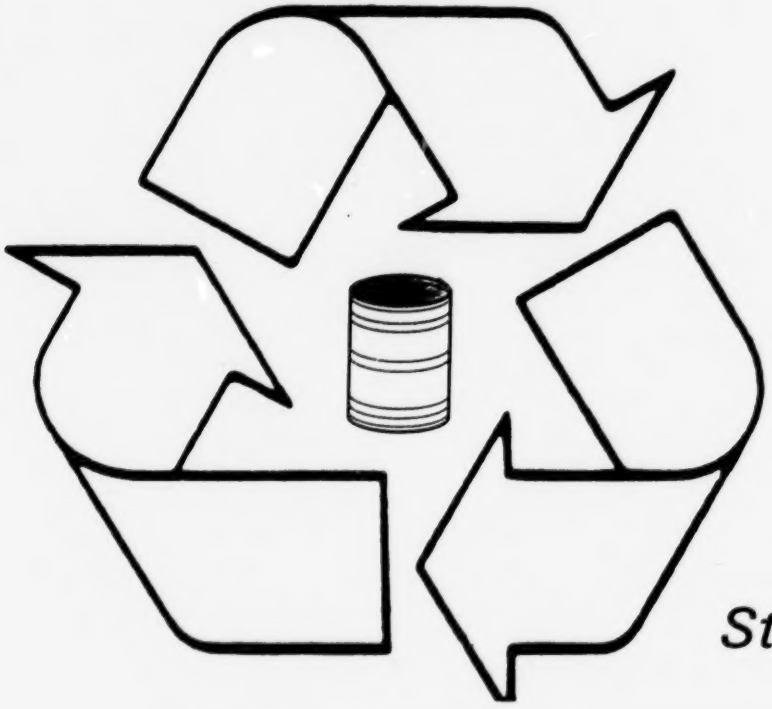
- **I Like Old Cloths**
  by Mary Ann Hoberman.
- **The Wump World**
  by Bill Peet.

Mini Recycler Finger Puppet

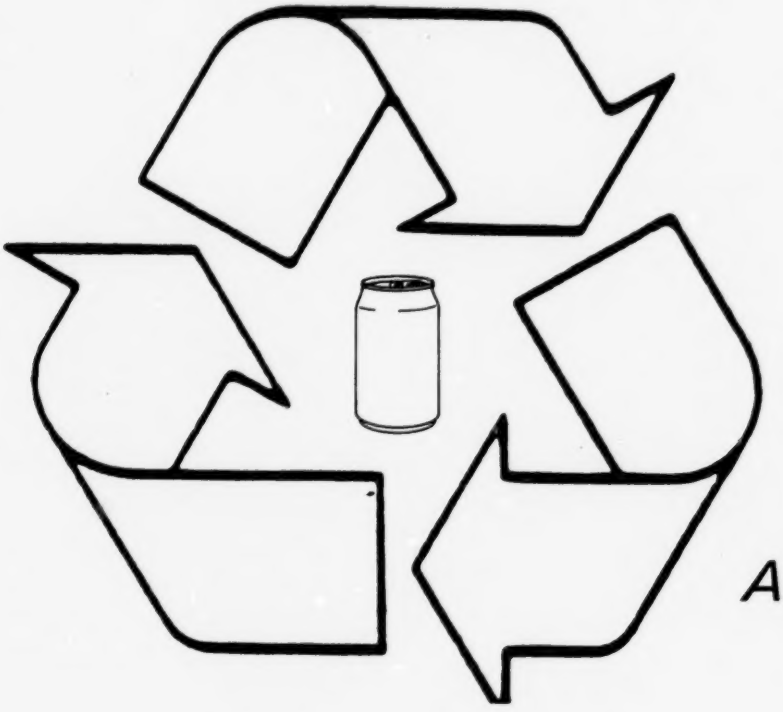


Copy the puppet onto stiff paper. Cut it out, including the finger holes. Allow the child to decorate the puppet. The child's fingers become the puppet's legs.

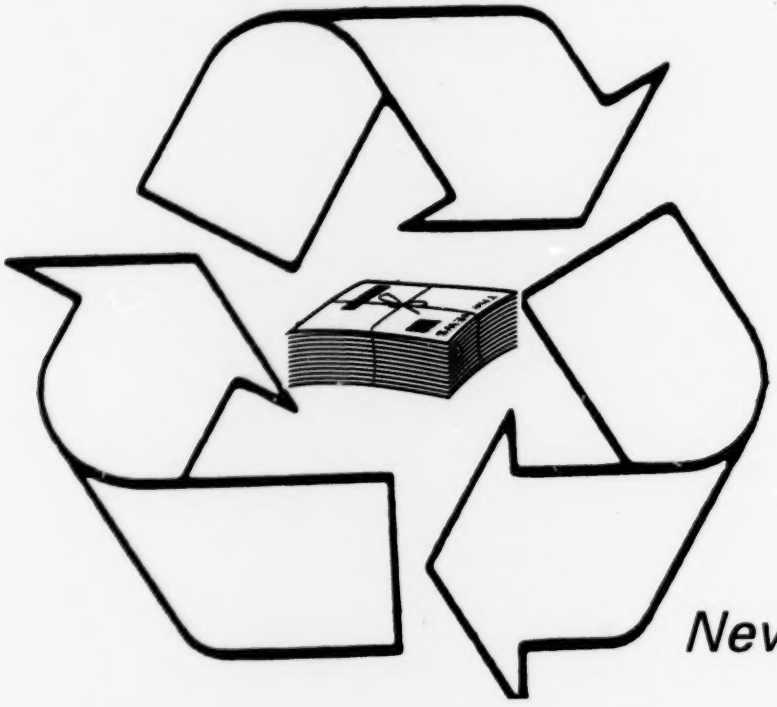




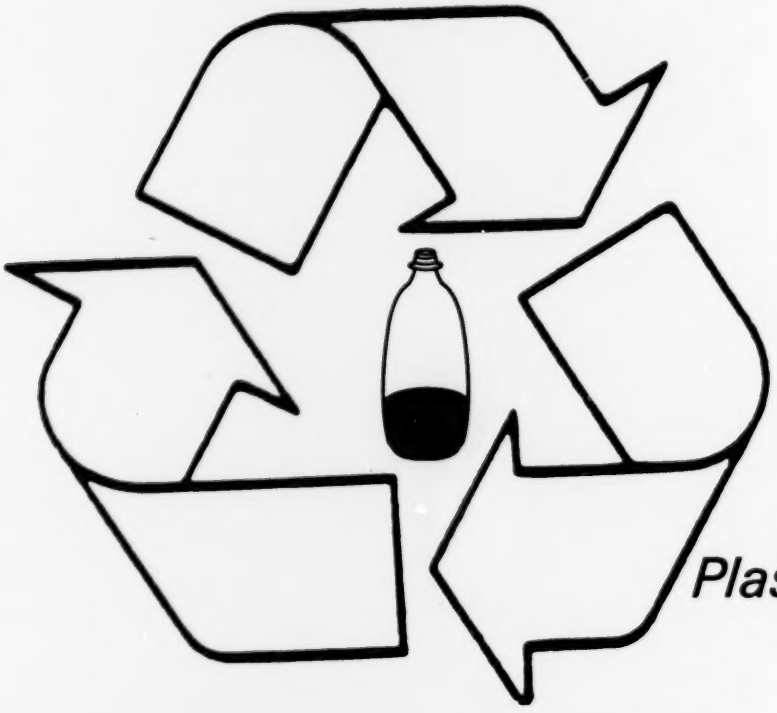
Steel Cans



Aluminum Cans



Newspapers



Plastic Soda Bottles

GIVE IT BACK

Objective The child will be able to 1) recognize a change in natural and human-made items buried in the soil over time, 2) identify, sort and classify recyclable human-made items, and 3) understand the recycling process for natural and human-made materials.

Method The child buries natural and human-made items in a waste garden to observe changes, sorts cans using a magnet, stomps a pile of leaves to demonstrate nature's recycling, and begins to recycle at school and at home.

Background Nature conserves its natural resources quite well. For example, twigs, leaves, and food that fall on the ground all break down into soil, which helps plants and animals grow. This is a natural cycle. Some of nature's resources are renewable, like trees and wildlife. These natural things can reproduce and grow again in a relatively short period of time. Nature's automatic "recycling" aids this process.

Nature also has non-renewable resources which take millions of years to reproduce. Examples of these items are petroleum, gas, coal, and minerals. From these resources, people have manufactured hundreds of products that are used every day. Most of these human-made items, such as steel and plastic, can be recycled just as nature recycles its twigs, leaves, and other natural materials. Since nature takes such a long time to re-make items like iron and petroleum, recycling these resources will conserve the resources for many future generations.

The major purpose of this activity is to show the child how natural and human-made items are recycled and used again to conserve natural resources.

Materials natural and human-made items, drawing materials, sticks and cards for signs, two boxes, magnets, a bag of full aluminum beverage and steel food cans (full cans are recommended so there will be no rough edges), a bag of leaves, large piece of plastic or paper

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Age: 3-5
Key Experiences: classification, seriation, spatial relations, time
Setting: indoors and outdoors
Vocabulary: recycling, human-made, conserve (conservation)

Procedure

Waste Garden

1. Collect waste materials, both natural (leaves, twigs, slice of apple, bread, feathers) and human-made (glass, marbles, steel food can, aluminum foil, newspaper, plastic bags).

2. Make a tracing of each item, recording its size, shape, color and texture. In a shoe box or area outside, plant these items in soil and mark the spot where each item is buried.

3. In a week, dig up the items and observe how the waste materials have changed (size, shape, texture, color, etc.) Compare with original tracings or with "new" waste items. Discuss the need to recycle and conserve human-made items that do not change quickly.

Cans are Attractive

1. Label two boxes, one for steel cans and one for aluminum cans.

2. Have the children use magnets to sort the bag of steel and aluminum cans. The magnets will stick to the steel cans but not to the aluminum cans. Count the number of cans in each box and determine which box has more or less.

3. Use these boxes to start a school multi-material recycling center, adding boxes for newspaper, plastic and other items used at school. Collect only items which are recyclable in the community. Send a note such as the sample on page 18 to parents encouraging recycling at home. Take a trip to a recycling center.

Leaf Stomp

1. Demonstrate recycling of natural materials by reducing the volume of a bag of leaves by stomping.

2. Measure the size of a full bag of leaves. Cut a length of yarn placed around the fullest part of the bag.

3. Dump the leaves on a sheet of plastic or paper. Allow each child to stomp the leaves.

4. Pour the leaf parts back into the bag. Measure the bag (volume reduced) by cutting a new length of yarn. Compare the yarn length from the reduced and full bags. Observe the stomped leaves and discuss natural recycling.

Extensions See the food, craft and books on page 17.

Evaluation

Recall

Ask the child to: name a human-made item that can be recycled and state why we should recycle.

Observation

Listen to the child's comments when items from the waste garden are dug up, during magnetic sorting, and while stomping leaves.

Food

Fruit Bread Rounds

Heat 1/2 cup raisins in 1/4 cup unsweetened frozen apple juice concentrate until the raisins are tender (approx. 3 minutes). Place raisins in a blender and puree. Then add 1 sliced banana, 1/2 cup vegetable oil, 1 teaspoon vanilla, 1/2 cup canned pumpkin and 1 egg and blend again. In a large bowl, mix or sift together 1 cup whole-wheat flour, 1/4 cup wheat germ, 1/2 teaspoon baking powder, 1/2 teaspoon baking soda, 1/4 teaspoon salt and 1 tablespoon cinnamon. Pour in pumpkin mixture and stir well. Remove the labels from 2 empty 16-oz. vegetable cans. Wash and dry the cans and spray the insides with nonstick vegetable cooking spray. Fill cans approx. 3/4 full with the bread mixture. Place in oven and bake at 350 degrees for 50 to 60 minutes. Let cool. Remove bread from cans and slice into 1/4 inch rounds. Serve plain or spread with cream cheese that has been mixed with a small amount of unsweetened frozen apple juice concentrate. Makes 16 servings. (Recycle the cans)

From **Theme-A-Saurus** by Warren Pub., Everett, WA: 1989. Page 77.

Craft

Cardboard Box Painting

Materials: cardboard box, tempera paints, paint brushes, water, rags

1. Paint box with tempera making a colorful scene, design or picture.
2. Let dry and store books or toys in "habitat."

From **Good Earth Art** by MaryAnn Kohl. Bright Ring Pub. Bellingham, WA: 1991. Page 17.

Non-Fiction

- **Cartons, Cans and Orange Peels: Where Does Your Garbage Go?** by Joanna Foster.
- **Recycle!** by Gail Gibbons.

Fiction

- **The Great Trash Bash** by Loreen Leedy.
- **Dear Garbage Man** by Gene Zion.

Letter to Parents

Recycling at School and Home

Dear Parents,

We are learning about responsible waste handling and how to recycle. In class today, your child planted trash and garbage in a waste garden, sorted steel and aluminum cans with magnets, and stomped leaves to make a soil conditioner.

Our school is starting a recycling program. We hope you will recycle at home if you are not already doing so. Check with a local recycling center for items accepted and how to prepare them.

These items are often accepted for recycling:

Steel Cans
Aluminum Cans
Newspaper
Plastic Jugs/Liter Bottles
Glass Bottles and Jars

Cordially,

GREEN FAMILY

Objective The child will be able to 1) demonstrate ways to conserve water, 2) recognize how plants and animals are affected by human actions, and 3) learn how to help protect the environment by changing daily habits.

Method The child pours into an empty milk jug excess water collected from a faucet to observe the amount of water wasted in one day, finds a broken or littered item and role-plays how this item was affected or affects the environment, and makes a greenprint on a tree picture each time a "green" habit is performed.

Background Going "green" is a popular way of saying that a person is environmentally sensitive. If an individual or family is "green," they are probably recycling, picking up litter, caring for wildlife, planting trees and conserving water, air, natural resources and energy.

Many environmental groups ask each person to do his or her part by changing their habits. Familiar slogans include: "Every Day is Earth Day!", "Save the Earth", "Give a Hoot, Don't Pollute" and "Only You Can Prevent Forest Fires." These messages encourage individuals to participate and show how each of us can make a difference.

In most communities, at least one or more organizations is educating the public to make a change or support an environmental cause. Families are asked to reduce, reuse and recycle things they use in an effort to save landfill space, natural resources and energy. The recycling message promotes: recycling discarded items rather than throwing them away, buying products made of materials which can be recycled in their local community and buying products made of recycled materials, like paper towels, food cans, beverage cans and laundry detergent bottles. Other issues include conserving water, energy and wildlife.

The major purpose of this activity is to demonstrate to the child what it means to be "green" and adopt individual and family habits which help to conserve and preserve the environment.

Age: 3-5
Key Experiences: number concepts, spacial relations, time
Setting: indoors and outdoors
Vocabulary: "green", conserve, reduce, reuse, recycle

Materials

mixing bowl, cups, milk jugs, small bags, green finger paint or green food coloring and glue

Procedure

Save a Drop Each Day

1. Place a big mixing bowl under one faucet and restrict water use to this faucet only. After each child uses the faucet, he or she must scoop the water into a cup and pour it into a milk jug. At the end of the day, draw the water line on the jug. Label the jug "Day 1."

2. Discuss ways to waste less water by turning the faucet off when washing your hands, getting a drink or washing dishes.

3. Repeat procedure #1 for a few days to see if the class can reduce the amount of water wasted. Fill and label a milk jug for each day. Compare the water in each jug. Ask the children: Which has more? Which has less?

Play Lightly on the Earth

1. Plan a walk to a park, or in the city look for patches of green space. Before the walk, talk about the plants and animals who live in these green areas.

2. Give each child a small bag to collect one thing that is broken (twig or leaf) or should not be there (litter - not sharp objects or food).

3. Have the children role-play the item which they found, explaining who left it or hurt it and what children could do to protect the plants and animals in the park or green space. Return the natural items to the park. Give suggestions on playing lightly on the Earth such as: stay on the path to protect delicate flowers and plants, make sure you leave an area just like you found it and do not disturb or feed the wildlife.

Leave Greenprints

1. For each child, make two copies of the Green Habit Tree on page 23. Keep one copy to use at school and send the second copy home with the parent letter on page 24, asking parents and siblings to get involved.

2. Review with the children the Green Habits list on page 24. Explain that for one week the class will be making green prints on their trees for each green habit they do. To make a greenprint, have children use their thumb and green finger paint or green food coloring and glue to make leaves on their trees.

3. At the end of the week, ask the children to count the number of greenprints on their trees. Invite parents to class to share the greenprints from home. Make a class pledge to participate in "green" habits every day at school and at home.

Extensions

See page 21 for a poem, craft and books. Plan a butterfly or hummingbird garden to instill in the children a sense of caring for the environment; instructions are on page 22.

Evaluation

Recall

Ask the child: What is a green habit? How do you play lightly on the Earth?

Observation

1. Watch for the children's involvement in saving water and role-playing with their collected items.

2. Observe the child when performing green habits.

Extensions

Poem

Sarah Cynthia Sylvia Stout
Would not take the garbage out!
She'd scour the pots and scrape the pans,
Candy the yams and spice the hams,
And though her daddy would scream and shout,
She simply would not take the garbage out.
And so it piled up to the ceilings:
Coffee grounds, potato peelings,
Brown bananas, rotten peas,
Chunks of sour cottage cheese.

It filled the can, it covered the floor,
It cracked the window and blocked the door.
At last the garbage reached so high
That finally it reached the sky.
And all the neighbors moved away,
And none of her friends would come to play.
And finally Sarah Cynthia Stout said,
"OK, I'll take the garbage out!"
But then, of course, it was too late...
The garbage reached across the state.

So children, remember Sarah Stout
And always take the garbage out!

From **Sarah Cynthia Sylvia Stout Would Not Take the Garbage Out!** by Shel Silverstein. *Where the Sidewalk Ends.* Harper Collins. 1974.

Fiction

- **The Old Red Rocking Chair** by Phyllis Root.
- **The Paper Bag Prince** by Colin Thompson.

Craft

Green Hair

Materials: clean, empty steel can, can opener that pokes holes, glue, paper, crayons or markers, potting soil, grass seed, shallow meat tray

1. Poke five or six small drainage holes in the bottom of the steel can.
2. Cut paper to wrap around the sides of the container. Glue in place. Allow the child to draw a face on the side of the container.
3. Fill the steel can to 1/2 inch from the top with potting soil. Sprinkle grass seed on top. Set the can in the shallow tray. Water gently till a small quantity of water runs out the drainage holes. Check the container daily. Keep the soil moist, but not soggy.
4. The grass will grow and become the "green hair". When the grass grows tall, allow the child to give it a "haircut".

Non-Fiction

- **The Window** by Jeanne Baker.
- **Create Your Own Backyard Refuge** by National Wildlife Federation Dept. FB, 8925 Leesburg Pike Vienna, VA 22184-0001

Butterfly and Hummingbird Gardens

You can attract these beautiful creatures to your yard by providing them with food and shelter. Plants and seeds can be purchased from a garden center or mail order catalogues. If space is a problem, many of the plants listed can be grown in large pots.

Butterfly Garden

Adult butterflies prefer a colorful garden. Their favorite plants have purple, pink, yellow or white flowers which provide a supply of nectar. Suggested butterfly garden plants are *purple lantana, butterfly bush, plumbago, shrimp plant, sedums, phlox, zinnias, coreopsis, petunias, verbena, asters, blazing star, butterfly weed and periwinkle.* Plant an assortment of these flowers to entice a variety of butterflies to your yard.

The best butterfly gardens also provide food and shelter for the butterfly eggs and larva, more commonly known as caterpillars. Try *various ornamental grasses, parsley, passion vines, Dutchman's-pipe, rue and cannas.* The larvae are chewing insects which feed mainly on foliage, rather than the flowers.

Hummingbird Garden

Hummingbirds seem to prefer red flowers. Plant *bee balm, trumpet honeysuckle, phlox, trumpet creeper, scarlet salvia.* While you are waiting for the plants to flower, hang a hummingbird feeder.

Hummingbird feeder

Clean a 1-pint milk carton using vinegar and a brush. Rinse thoroughly after cleaning. Punch a hole in the side of the carton and place red paint, tape or ribbon around the hole. Fill the feeder with hummingbird nectar and hang in a tree out of direct sun.

Hummingbird nectar

Mix 1/2 cup of sugar into one cup of hot water. Stir till the sugar dissolves. Add one cup of cold water. Do not add red food coloring to the nectar. Change the nectar every two or three days. Scrub the feeder clean before adding nectar.

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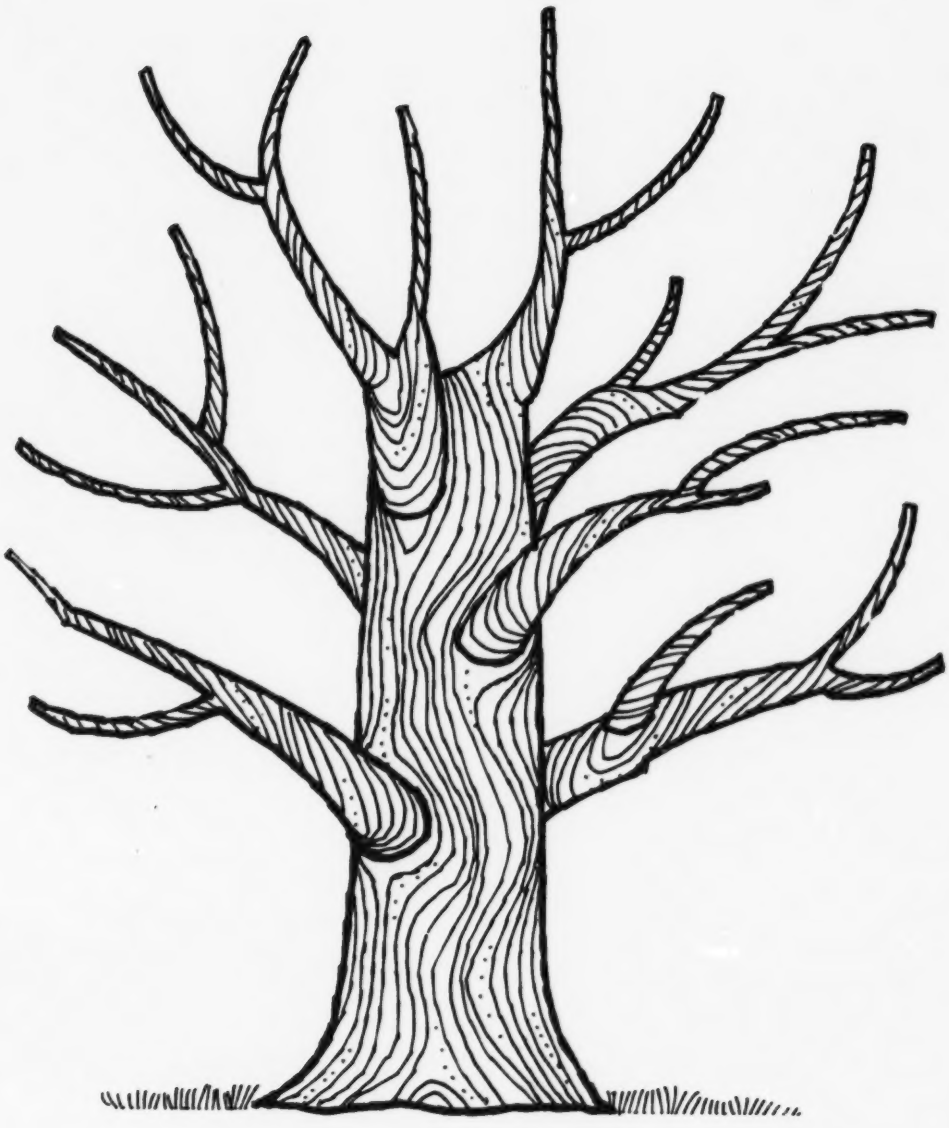
Green Habit Tree



Copy this tree (or on a separate page draw a tree native to your area). Add green thumbprints for leaves every time you complete a green habit.

Green Habits

Make a greenprint on your tree for each "green" habit you do.

- Pick up litter
- Recycle a can, newspaper or plastic container
- Turn off the faucet to save water when you brush your teeth and wash your hands
- Put on a sweater and turn down the heat
- Use your grocery bag a second time
- Eat all your food; don't throw it away
- Use the sidewalk or path; don't walk in the grass
- Ride in a car with all the seats full (carpool)
- Turn off the lights, radio and TV when you leave the room
- Use both sides of paper
- Share a magazine or newspaper with a friend
- Give old clothes or toys to someone who can use them

Add a few of your own!

Dear Parent,

We are learning what it means to be a "Green Family." A green family is environmentally sensitive and promotes the development of "green habits," such as recycling, picking up litter, caring for wildlife and conserving water, air, natural resources and energy.

Enclosed is a "Green Habit Tree" to use at home. Suggestions for green habits are listed above. You may add green habits of your own. Each day for a week, have each member of your family place one green thumbprint on the tree for each green habit they performed that day. To make green thumbprints, use green finger paint, or glue with a little green food coloring mixed in. At the end of the week, your "Green Habit Tree" should have lots of green thumbprint leaves!

Cordially,

BEST COPY AVAILABLE

THEY'RE ALL WET

Objective

The child will be able to 1) observe and count wildlife in a pond area, 2) understand the life cycle of a frog, and 3) compare wildlife in a pond to wildlife in the ocean.

Method

The child observes the underwater environment of a pond through a hand-made viewer, role-plays the life of a frog, and makes an edible model of the ocean.

Background

Ponds are full of wildlife. In the water, fish, tadpoles and insects are commonly found. Around a pond live ducks, snakes, birds, and frogs.

Frogs are amphibians. They spend the first part of their lives under water, first as eggs, then as tadpoles. When they change into adult frogs, they are able to live on land. Most amphibians begin their lives in water, as frogs do.

Amphibians have smooth, thin, moist skin. Their skin is so thin that it lets water in and out. Frogs do not have to drink because they take in water through their skin. They also breathe through their skin.

The tongue of a frog is attached to the front part of its mouth and is sticky. The frog can shoot out its tongue and capture its food. Frogs eat insects, minnows, earthworms, and spiders. Frogs hibernate in the bottom of a pond during the winter.

Whales are mammals with fish-like characteristics and behavior. They live in a bigger "pond"--the ocean--and can be seen at zoos and water parks.

The major purpose of this activity is to have the child discover the variety of wildlife which lives around a pond, become familiar with frog behavior, and compare small fish in ponds to a whale (a big fish-like mammal) in the ocean.

Materials

small milk or juice cartons, plastic wrap, waterproof adhesive tape, large bucket, index cards, balloons, gelatin, prunes

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Age: 3-5
Key Experiences: classification, representation, seriation, number concepts
Setting: outdoors
Vocabulary: whale, amphibian, pond

Procedure

Pond Life

1. Help each child make a pond viewer. Cut the bottom out of a small milk or juice carton and open the top completely. Cover the bottom with plastic wrap, fold it over the sides and tuck it into the top. Tape it tightly in place with waterproof adhesive tape.

2. Take a hike to a nearby pond. Ask the children: What do you see? How many forms of wildlife? What colors do you see?

3. Fill a large bucket with pond water, capturing some pond wildlife. One at a time, have each child place the bottom of his or her viewer into the water in the bucket, and look through the top of the viewer. Ask each child: What do you see? What is it doing? Compare the wildlife observed around the pond with the wildlife in the bucket.

Little Frog in A Big Pond

1. Explain the life cycle of a frog (see background). Hopefully, the class saw a tadpole in the bucket of water from the pond. Have the children imitate frog stages: an egg, a wiggly tadpole, and a leaping and croaking frog that catches bugs with its tongue.

2. On index cards, make action/picture cards of a frog leg (leaping), frog mouth (croaking), and frog tongue (bug catcher). See the samples on page 28. Demonstrate the actions for each card. Tape a sample action card in three separate corners of the room.

3. Give each child an action card, and at the same time, have the child imitate the action and move to the corner of the room which has the same action/picture card.

There She Blows

1. Use visuals to describe a whale and its "home," the ocean. Compare whales and their behavior and habitat to wildlife in a pond.

2. Imitate a whale spouting water by placing an inflated but untied balloon in a shallow pan of water and letting it go. Allow each child try this.

3. Create a model of whales in the ocean. With a fork poke a hole in each prune. Float the prunes in unset blue gelatin. Once the gelatin has set, have each child take a prune from the gelatin, squeeze it to imitate a spouting whale, and then eat the prune.

Extensions

See the food, poem and books on page 27.

Evaluation

Recall

Ask the child: What kinds of wildlife live in a pond and in an ocean?

Observation

Watch and listen to the child's behavior and responses during the Pond Life and Little Frog in a Big Pond activities.

Food

Finger Jello Frogs

4 envelopes unflavored gelatin
3 pkg. (3 oz. each) lime flavored gelatin
4 cups boiling water

Combine gelatin in large bowl. Add boiling water and stir until dissolved. Pour into a 9" X 13" pan and chill until set (at least one hour). Using a cookie cutter, cut frog shapes from green finger jello. Dip small marshmallows in whipped topping and place for eyes.

From **Daily Plans for Active Preschoolers** by Judy Galloway. The Center for Applied Research in Education, West Nyack, NY: 1990. Page 238.

Poem

Red Bug, Yellow Bug, Little Blue Snake
floated on the Great Salt Lake,
they played and splashed without a care,
happy to be bathing there.

Big Green Bullfrog, mean and sly,
watched the three and blinked an eye.
"Croak!" was all they heard him say,
"Whoops!" they yelled and swam away.

From **Beneath a Blue Umbrella** by Jack Prelutsky. Greenwillow, NY: 1990. Page 48.

Non-Fiction

- **Tadpole and Frog**
  by Christine Back.
- **Frogs**
  by Christine Butterworth.
- **Whales**
  by Gail Gibbons.
- **Amazing Fish**
  by Mary Ling.

Fiction

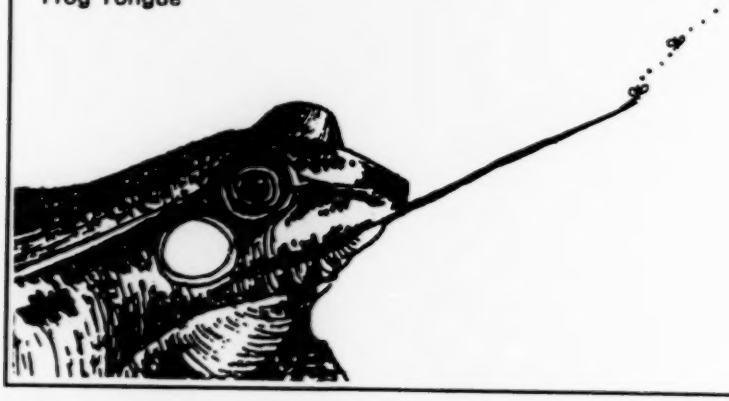
- **Whale Song**
  by Tony Johnston.
- **Blue Sea**
  by Robert Kalan.
- **It's Mine**
  by Leo Lionni.
- **Better Move on Frog**
  by Ron Maris.
- **In the Middle of the Puddle**
  by Mike Thaler.

Action Picture Cards

Frog Leg

Frog Mouth

Frog Tongue



UN-NATURE TRAIL

Objective

The child will be able to 1) understand the difference between litter and garbage, 2) identify and evaluate ways that litter pollution can endanger wildlife and people, and 3) propose ways to help eliminate the dangers of litter.

Method

The child accumulates one day's garbage in a bag attached on a belt loop, collects and counts litter items placed on a trail, and finds litter from a natural area.

Background

Litter hurts both wildlife and people. It is unsightly and harmful to wildlife. Litter often makes them sick or causes them injury. For example, fish and animals eat shiny bottle tops or pop can tops. Sometimes birds or fish get caught in the plastic six-pack can holders and cannot get loose. The animals continue to grow but the plastic does not stretch, causing crippling injuries. Monofilament fish line gets tangled in bird feet and wings, keeping them from taking off and flying. The line also gets wrapped around the beaks of some birds so that they cannot open their mouths to eat. Deer can get internal injuries from eating plastic wrappers, styrofoam cups or cigarette butts. Animals always go barefoot, so broken glass or other sharp objects are very dangerous to them.

In much the same manner, litter can physically harm people. Broken glass or metal pop tabs that have been littered at beaches, playgrounds or sidewalks can cause cuts if children are playing barefoot.

The major purpose of this activity is to make the child aware of litter and its effect on wildlife and people.

Materials

plastic grocery bags, string, litter-type objects, paper lunch bags, plastic sandwich bags, paper towels, tape, art materials for a group book

Procedure

Bag It

1. Attach a plastic bag to the child's belt loop with a string. Have the child collect waste in the bag for a whole day, from breakfast to bedtime. Send a note home, similar to the letter on page 32, explaining the project to the parents.

Age: 3-5
Key Experiences: classification, number concepts, time
Setting: outdoors and indoors
Vocabulary: litter, pollution

2. The next day, ask the child to empty the bag on a paper towel. Compare each child's waste to others in the class.

3. Place all the garbage in one bag. Observe and count the number of small bags included in the one big bag. Discuss the difference between these items as garbage (in the bag) and litter (on the ground).

On the Trail

1. Choose a 40-foot section of ground as the "Un-nature Trail." Place several human-made objects on the trail (bright balloons, cigarette butts, plastic bags, bottles, etc.; no sharp or dangerous objects).

2. Tape a plastic bag over each child's hand for protection. Have each child walk over the un-nature trail, one at a time, and collect three littered objects. When each child reaches the end of the trail, have him or her whisper to you other items seen on the trail.

3. Have each child show one item collected and discuss how the litter hurts wildlife and people.

Dragon Hunt

1. Tell a story similar to that on page 32 of a dragon who visited the school and left a trail of "evidence" (smashed cans, torn paper, food wrappers, etc). Plant the "evidence" prior to beginning the dragon hunt.

2. Tape plastic sandwich bags over each child's hands for protection. Divide the children into small groups. Give each group one bag and have them collect the "evidence." Warn the children not to pick up glass, sharp metal or food.

3. Have the children observe the litter they collected and make up a story of the dragon's activities in the school yard and how the class saved the world by picking up the litter. Make a group storybook.

Extensions

Ask the children which items collected in Bag It, On the Trail and Dragon Hunt could be recycled. See the crafts and books on page 31.

Evaluation

Recall

Ask the child to: name a piece of litter and how it hurts wildlife.

Observation

Listen as the child describes the litter collected.

Extensions

Craft

Litter Eater

Materials: paper grocery or lunch bags, scissors, crayons, paints or markers

1. Cut a hole on one side of a paper bag.

2. Draw eyes and a nose on the bag, the hole being the mouth.

3. Throw away garbage in the "litter eater."

From **Mudluscious: Stories and Activities Featuring Food for Preschool Children** by Jan Irving. Libraries Unlimited, Littleton, CO: 1986. Page 144.

Craft

Trash Creations

Materials: egg cartons, styrofoam cups, boxes or plates, paper plates, toilet paper and paper towel rolls, any other "clean" trash, crayons, paint or markers, pipe cleaners, construction paper, glue

Make animals, scenes, people or designs with the used materials. Add decoration and detail with crayons or paints, pipe cleaners and construction paper.

Non-Fiction

- **Trash**
  by Charlotte Wilcox

Fiction

- **Aunt Ippy's Museum of Junk**
  by Rodney A. Greenblat.

- **The Whartville Wizard**
  by Don Madden.

Dear Parent,

Today at school, your child participated in "Bag It," an activity from the Nature's for ME Preschool/Head Start activity guide. We discussed how litter hurts wildlife and people. To understand the difference between litter and garbage, your child is collecting all the trash and garbage he/she produces today. Please add items you would dispose of at home (nothing breakable or sharp) and send the full bag back tomorrow. Please encourage your child to always throw trash in a container to keep our environment litter-free.

Thank you for your support and cooperation!

Cordially,

Dragon Hunt Story

Once upon a time there was a little dragon named Raymond. Raymond was one of the messiest dragons I ever knew. And another thing -- he was always hungry! Since Raymond loved chips, candy bars, and pop, there were always wrappers, paper plates, cans, and other trash lying in a trail wherever Raymond went. Needless to say, Raymond's messiness and his "hungriness" created a lot of trash! One day, Raymond got lost from his parents. It got late and poor Raymond was hungry. But as I said, Raymond was always hungry. He was walking by _____ school and suddenly the biggest candy and pop machines he'd ever seen magically appeared. "Thank goodness I didn't spend my allowance on that toy human at Dragon-Mart!" cried Raymond, "I can eat all I want from these awesome pop and candy machines!" Of course, Raymond gave no thought to throwing his trash wherever he happened to be. See if you can find where Raymond ate his dinner last night!

UP A TREE

Objectives

The child will be able to 1) use the senses of touch and hearing to learn about parts of a tree, 2) learn the similarities and differences between trees, and 3) understand the various ways that both wildlife and people use trees.

Method

The child matches a leaf to a tree which has the same kind of leaves, explores a tree using senses other than sight, looks for signs of wildlife in and around trees, listens to the sap running inside of a tree, and discovers everyday items that are made from trees.

Background

Trees come in all shapes and sizes, but most species have roots, trunks, bark, branches, buds, and leaves. Some trees lose their leaves in the winter (deciduous) and others stay green all year round (evergreens). Some trees produce flowers and fruit such as apples or nuts, while other trees produce cones (coniferous). Thousands of species of trees exist, and all have characteristics which make them different from one another. Wildlife and humans take advantage of those unique characteristics and use them in many different ways.

Trees provide shelter for many species of wildlife. Some types of birds build their nests in trees, often using twigs or leaves to build the nests. Squirrels live inside the hollow areas of trees or in large leafy nests in the branches.

Trees also provide food for many species of wildlife. Insects eat the bark or leaves of trees. Squirrels eat nuts and acorns. Many birds eat fruit and berries from trees.

People use trees for food and shelter, too. We eat nuts and fruit, and have mills which refine tree products to make building materials. We also use trees for paper and boxes, and for beautifying the landscape. We can conserve our supply of trees by recycling paper and cardboard.

The major purpose of this activity is to familiarize the child with trees and the ways that wildlife and people use them.

Materials

area with different types of trees/leaves, blindfolds, stethoscope, items from trees or made from trees, paper bags

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Age: 3 - 5
Key Experiences: classification, representation, seriation, spatial relations, time
Setting: outdoors/indoors
Vocabulary: deciduous, coniferous, evergreen

Procedure

Leaf Hunt

1. Go on a nature hike. Make sure to go to an area where trees are plentiful.

2. Have the children gather leaves from the ground and place them in a pile. Be sure to include needles from evergreen trees, if available.

3. Have each child select a leaf from the pile and search for the tree that it could have come from, or find leaves on the ground that are like it. Compare the leaves; how are they same or different?

Meet a Tree

1. Choose a tree for each child. Trees should be at least six inches in diameter and have smooth bark. Blindfold the children, or have them close their eyes. Lead them to their trees and encourage them to explore their trees by touch. Make specific suggestions such as "Rub your cheek on the bark" or "Put your arms around the tree."

2. Lead the children away from the trees and take off the blindfolds, or have them open their eyes. Ask each child to guess which tree he or she explored. Allow the children to re-explore trees with their eyes open to help find the right trees. Allow them to examine leaves, twigs, or nuts that have fallen from the tree, but encourage them to not pull leaves or twigs from the tree.

3. Have each child look for evidence of wildlife in or on the tree. Are there holes made by woodpeckers or insects? Are there spider webs or insects crawling on the tree? Is there a bird nest in the tree?

4. Choose a tree that is at least six inches in diameter and has smooth bark. Hold a stethoscope on the tree and have each child listen to the sap moving in the trunk. Deciduous trees give better results than coniferous trees. Make each child a badge "Today I listened to a tree heartbeat" as shown on page 36.

The Giving Tree

1. Gather items that come from trees and are made from trees such as leaves, nuts, fruits, paper, wood, etc. Ask the child to contribute items from home.

2. Have the child examine the items. Ask how wildlife or humans might use these items.

3. Secretly place the items in separate paper bags. Have the child feel the objects inside the bag and guess what each item is. Prepare the child for what is in each bag by giving clues such as "this item comes from a tree and we like to eat it."

Extensions

Make a bird feeder to hang on a tree; watch a tree as it changes with the seasons; glue leaves and twigs on paper to make a forest or a tree; look up names of trees in a field guide. See the food, poem and books on page 35.

Evaluation

Recall

Ask the child to: describe a tree and tell one way wildlife or people use it.

Observation

Watch child's participation during Leaf Hunt and Meet a Tree activities.

Food

Tree Treats

1 cup dried apricots
1 cup dried figs
1 cup dried, pitted prunes
2/3 cup almonds
1 small package shredded coconut
1/2 teaspoon ground cloves
1 teaspoon cinnamon

Grind the apricots, figs, prunes, and almonds together into tiny bits in a food grinder or food processor. Stir in the spices. Mold the mixture into balls and then roll the balls in the shredded coconut.

From **Ranger Rick's Nature Scope, Trees are Terrific!** National Wildlife Federation, Washington, DC: 1988. Page 67.

Poem

Trees

The Oak is called the king of trees,
The Aspen quivers in the breeze,
The Poplar grows up straight and tall,
The Peach tree spreads along thewall,
The Sycamore gives pleasant shade,
The Willow droops in watery glade,
The Fir tree useful timber gives,
The Beech amid the forest lives.

--Sara Coleridge

From the **Random House Book of Poetry for Children** selected by Jack Prelutsky. Random House, NY: 1983. Page 24.

Non-Fiction

- **The Tremendous Tree Book** by May Garelick.
- **Trees** by Illa Podendorf.

Fiction

- **Red Leaf, Yellow Leaf** by Lois Ehlert.
- **Nature Walk** by Douglas Florian.
- **Hello, Goodbye** by David Lloyd.
- **Hello, Tree** by Joanne Ryder.

Today I Listened

to a

Tree Heartbeat!

Today I Listened

to a

Tree Heartbeat!

WHAT'S IN THE EGG?

Objective

The child will be able to identify wildlife eggs 2) recognize the parts of an egg, and 3) understand that wildlife eggs must not be disturbed.

Method

The child learns about the different parts of an egg, types of eggs, and wildlife such as birds, ducks, lizards and snakes that come from eggs.

Background

Birds are not the only type of wildlife that hatch from eggs. Reptiles (snakes, lizards, turtles, alligators), amphibians (frogs, salamanders), fish and insects also hatch from eggs! The eggs of birds are hard-shelled, while the eggs of reptiles, amphibians, fish and insects are more rubbery. Eggs come in hundreds of shapes, sizes and colors. Some are blue and small like robin eggs, and some are creamy white and rubbery like snake eggs. Before bird eggs are fertilized, they have four parts: the outer shell, the shell membrane, the egg membrane or the white, and the yolk. In the wild, eggs are found in nests, in holes, on top of the ground or in water. Many animals protect and nurture their eggs. Human scent will sometimes attract other predators who often eat or harm the eggs. The major purpose of this activity is to increase the child's awareness of the types of wildlife eggs, and the need to leave wildlife eggs alone.

Materials

chicken eggs, vinegar, quart jar, plastic eggs, pictures or small toys of animals which lay eggs, materials for natural egg dyes, shredded paper, mud, perfume

Procedure

All Cracked Up

1. Soak an egg in vinegar for two days. The shell will become transparent and the children will be able to see the parts of the whole egg.

2. Crack an egg and separate it into parts: the shell, the shell membrane, the white and the yolk. Compare the parts in the transparent egg to the cracked egg.

3. Invite a speaker from a farm, zoo or nature center to discuss and demonstrate egg-producing wildlife and domesticated animals.

Egg Surprise

1. Collect plastic eggs and place either pictures or toy figures of birds, lizards, snakes, etc. in the eggs.

Age: 3-5
Key Experiences: classification, representation, seriation, time
Setting: indoors
Vocabulary: reptile, scent

2. Place the filled plastic eggs in a basket and have each child choose an egg, guess what is in his or her egg, and open it.

3. Place the eggs back in the basket. This time, have each child secretly open an egg and role-play the animal for others to guess, or all children may role-play their animals at once.

Handle With Care

1. Collect items described on page 40 for "natural" dyes. Show pictures of wildlife and their eggs. Help each child dye or decorate a boiled egg to match a wildlife egg (robin--blue, house wren--speckled, crowned kinglet--golden, loon--olive brown, emu--green.)

2. Make nests with shredded paper and mud (other options are straw and mud or shredded wheat and melted chocolate chips). Have each child place a colored boiled egg in a nest. Explain that wildlife eggs must never be touched because humans leave a scent that animals can smell. This smell sometimes attracts other animals which may eat or harm the eggs.

3. At random, dot one or more eggs in the nest with perfume. Have each child smell the eggs, and without touching them, tell which eggs have been touched by humans (dotted with perfume).

Extensions

See the craft, fingerplay and books on page 39.

Evaluation

Recall

Ask the child to: name the parts of an egg; name a type of wildlife egg.

Observation

Watch the child as he or she pretends to be an animal during Egg Surprise and as he or she smells the perfumed eggs in Handle with Care.

Craft

Egg Shell Mosaic

Materials: pencil, heavy paper or cardboard, liquid white glue, egg dye or food coloring, paper cups, paper towels, spoon, cracked egg shells, waxed paper, rolling pin, paintbrush

1. Prepare egg dye and dye egg shells. Place cracked shells between two pieces of waxed paper.
2. Crush the shells with a rolling pin.
3. Brush an area of the paper with white glue and sprinkle the egg shells on the glue. Let dry overnight.
4. When dry, tip the paper to remove excess shells. Brush the entire surface with white glue mixed with water to seal.

Note: Designs can be drawn on the paper and outlined with glue and yarn and the egg shells may then be used to fill in the design areas.

From **Snips & Snails & Walnut Wales**
by Phyllis Fiarotta. Workman, NY: 1975.
Page 138.

Fingerplay

There Was a Little Turtle

There was a little turtle
Who lived in a box.
(cup hands like a box)
He swam in the puddles
And climbed on the rocks.
("climb" hand on other hand)
He snapped at the mosquito,
He snapped at the flea.
He snapped at the minnow,
(make three snapping motions)
And he snapped at me.
("snap" nose)
He caught the mosquito,
He caught the flea.
He caught the minnow,
(clasp hands three times)
But he didn't catch me!
(touch nose and shake head)

From **Finger Rhymes** ill. by
Marc Brown. Dutton, NY: 1980.
Page 25.

Non-Fiction

- **Snakes**
  by Donna Bailey.
- **Bird**
  by David Burnie.
- **Reptile**
  by Colin McCarthy.
- **Amazing Snakes**
  by Alexandra Parsons.

Fiction

- **The Hare and the Tortoise**
  by Paul Galdone.
- **Box Turtle at Long Pond**
  by William T. George
- **Chickens Aren't the Only Ones**
  by Ruth Heller.

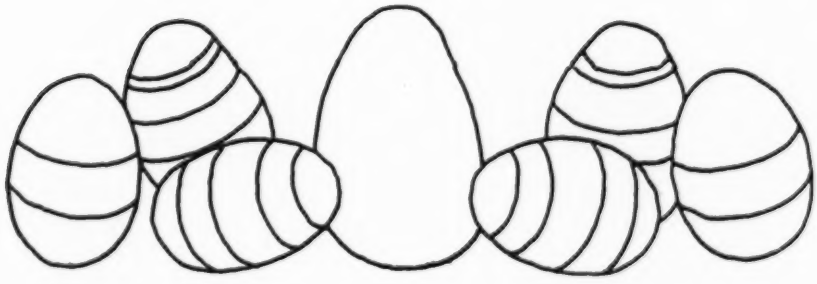
Natural Egg Dyes

Materials chicken eggs, mild soap and water, towel, plastic sandwich bags, bag twists, cooking pot, stove, natural materials to make egg dyes (berries, spinach leaves, tea bags, beet juice, carrot tops)

Safety Tip Watch the child closely around the stove and hot water.

Procedure

1. Wash eggs with soap and water and dry with a towel.
2. Fill sandwich bag with one or more of the dyes and a small amount of water.
3. Place egg in the sandwich bag and close tightly.
4. Place sandwich bag into cooking pot filled with water and boil 10 minutes.
5. Let cool and remove bag from cool water.
6. Untie bag and remove egg. Different colors will be left on the egg from natural materials.



GLOSSARY

This glossary is not comprehensive, but does include terms that can be easily understood by a preschool child. Head Start educators may introduce these terms during the beginning of each activity.

amphibian frogs, toads, salamanders and newts. Amphibians typically live in an aquatic habitat when young, breathing through gills, and in a terrestrial habitat when adult, breathing through lungs and through moist glandular skin.

antenna a moveable sensory organ on the head of an insect; sometimes called "feelers."

caterpillar the worm-like larva of a butterfly or moth.

claw sharp, slender and curved nail on the toe of an animal.

cocoon a silk-like envelope which an insect larva forms about itself during the quiet stage of metamorphosis.

conserve (conservation) the use of natural resources in a way that assures their continuing availability to future generations.

coniferous referring to cone-bearing trees. A coniferous forest is one composed of pines, firs, or spruce. Most coniferous trees are also evergreen.

deciduous referring to trees that shed their leaves in the fall.

den the lair, or "home", of a wild animal such as a mountain lion or bear

evergreen referring to trees which keep their leaves through the winter.

litter human-generated solid waste in an inappropriate place.

human-made materials created by humans with the use of technology.

pollution substances deposited in the air, water or land, which may accumulate and lead to a state of dirtiness, impurity, unhealthiness, or hazard.

pond a body of water smaller than a lake.

recycling to process waste materials for use with raw materials in the manufacture of new products. Recyclable items found in the home or school include steel food cans, aluminum beverage cans, paper, various plastics and glass containers.

reptiles lizards, snakes, turtles, alligators and crocodiles. Reptiles have scales and generally crawl or move on their bellies or on short legs.

scent an odor which may be used to seek or track other animals, including prey.

survive to remain alive.

talons the claws of an animal, especially a bird of prey.

tracking to follow the tracks or traces of wildlife.

whale a marine animal that breathes air, lacks hind limbs and has front limbs modified as flippers.

LIST OF AGENCIES AND ORGANIZATIONS

Aluminum Recycling Association
1000 16th Street, NW, Suite 400
Washington, DC 20036
(202) 785-0550

American Forest and Paper Association
1250 Connecticut Avenue, NW, Suite 200
Washington, DC 20036
(202) 463-2420

American Iron and Steel Institute
1101 17th Street NW, Suite 1300
Washington, DC 20036
(202) 452-7100

American Plastics Council
1275 K Street, NW, Suite 500
Washington, DC 20005
(202) 371-5319

Aseptic Packaging Council
1000 Potomac Street, NW, Suite 401
Washington, DC 20007
(202) 333-5900

Can Manufacturers Institute
1625 Massachusetts Ave. NW
Washington, DC 20036
(202) 232-4677

Center for Marine Conservation
1725 DeSales Street, NW, Suite 500
Washington, DC 20036
(202) 429-5609

Glass Packaging Institute
1627 K Street, NW, Suite 800
Washington, DC 20006
(202) 887-4850

Institute of Scrap Recycling Industries
1325 G Street NW
Washington, DC 20005
(202) 466-4050

Keep America Beautiful, Inc.
Mill River Plaza, 9 West Broad Street
Stamford, CT 06902
(203) 323-8987

National Recycling Coalition, Inc.
1101 30th Street, NW, Suite 305
Washington, DC 20007
(202) 625-6406

National Wildlife Federation
1412 16th Street, NW
Washington, DC 20036
(202) 797-6800

Steel Recycling Institute
680 Andersen Drive
Pittsburgh, PA 15220-2700
(412) 922-2772

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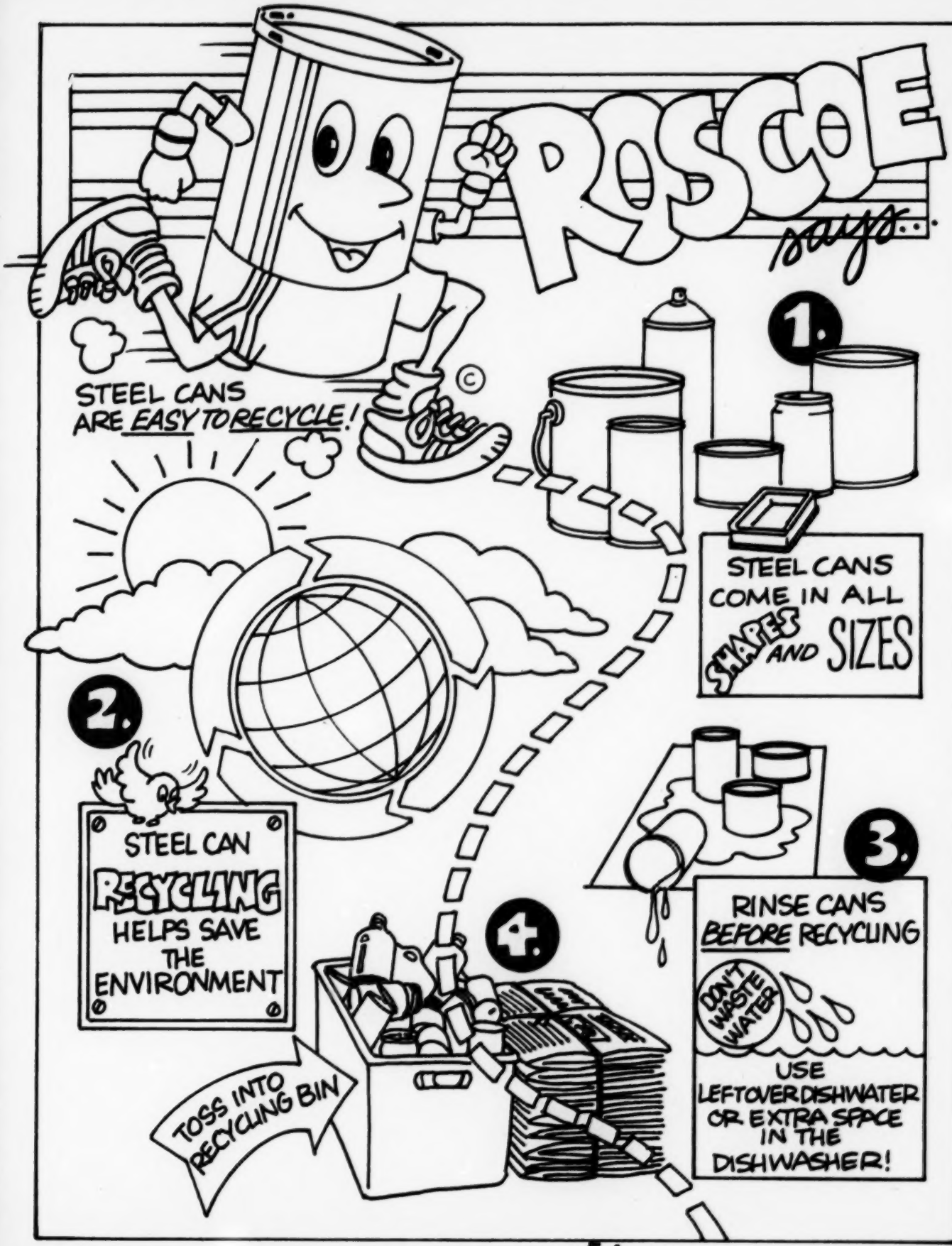
ROSCOE says...
STEEL CANS ARE EASY TO RECYCLE!
1.
STEEL CANS COME IN ALL SHAPES AND SIZES
2.
STEEL CAN RECYCLING HELPS SAVE THE ENVIRONMENT
3.
RINSE CANS BEFORE RECYCLING
DON'T WASTE WATER
USE LEFTOVER DISHWATER OR EXTRA SPACE IN THE DISHWASHER!
4.
TOSS INTO RECYCLING BIN